

Life Expectancy and Small Area Deprivation in New Zealand

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Foreword

One of the Government's key goals is to reduce inequalities in health, education, employment and housing. The Ministry of Health is developing a framework to guide action to reduce inequalities in health, building on the New Zealand Health Strategy and the New Zealand Public Health and Disability Act 2000. The framework proposes:

- intersectoral collaboration to influence the common social and economic determinants of health and other social outcomes
- specific action within the health sector itself.

The framework is supported by a monitoring programme for social inequalities in health. The first report of this monitoring programme was an overview, *Social Inequalities in Health: New Zealand 1999*, published jointly by the Ministry of Health and Otago University.

The present document extends and updates information in the overview report regarding deprivation gradients in mortality. A companion volume, *Inhaling Inequality*, to be published by the Ministry of Health later this year, provides estimates of the contribution of tobacco to these gradients.

Life Expectancy and Small Area Deprivation in New Zealand should be of interest to policy makers and their advisors, researchers and health professionals, and a wide range of community groups concerned with social inequalities in health. The ongoing monitoring process, of which this report is a part, should stimulate debate on the actions we must take to reduce the serious inequality in life chances so clearly demonstrated in this report, while simultaneously providing us with feedback on the success or otherwise of our efforts to do so.

Comments on the report are welcomed, and should be sent to Public Health Intelligence, Ministry of Health, PO Box 5013, Wellington, New Zealand; or email martin_tobias@moh.govt.nz.



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Disclaimer

The opinions expressed are those of the authors and do not necessarily reflect the views of the Ministry of Health.

Executive Summary

Socioeconomic and ethnic inequalities in health are of great concern, and life expectancy provides a readily understood means of monitoring such inequalities.

The objectives of this study are to:

- measure life expectancy by socioeconomic deprivation and ethnicity
- analyse trends in the deprivation gradient in life expectancy since the mid-1990s.

Three years of national mortality data have been combined with mid-point population denominators to produce life tables within nationally determined levels of small area deprivation (NZDep96) for three ethnic groups: European, Māori and Pacific peoples. This process has been repeated for the periods 1995–97, 1996–98, 1997–99 and 1998–2000.

Results

There was a strong relationship between increasing small area deprivation and decreasing life expectancy. Through the mid- to late 1990s, males living in the most deprived small areas in New Zealand experienced life expectancies at birth approximately nine years less than their counterparts living in the least deprived areas; for females the corresponding difference was under seven years.

Māori and Pacific life expectancies at birth were lower than for Europeans at each level of deprivation.

Over the study period (1996–99) the gradient in life expectancy across deprivation deciles remained stable. Widening of social or ethnic inequality in survival chances over this period could not be demonstrated by this method.

Conclusion

Small area deprivation analyses of life expectancy could be repeated routinely at regular intervals, which would provide a useful approach to monitoring trends in socioeconomic, geographic, ethnic and gender inequalities in mortality.

Introduction

In New Zealand, as in other countries, socioeconomic inequalities in health are of great concern (Howden-Chapman and Tobias 2000). Analyses using occupation-based social classes show that mortality varies linearly across the six social classes, the ratio between extreme classes being about two-fold (Pearce et al 1983a; Pearce et al 1993). Similar gradients were found for both Māori and non-Māori, but within social classes Māori have higher mortality. The gradient is seen for all major causes of death. Between the mid-1970s and 1980s the social class inequality in mortality widened, and this trend has continued into the 1990s (Pearce, in preparation).

These analyses have drawn attention to the social patterning of life chances in New Zealand, but are restricted to employed working-age males – currently less than 30 percent of the total New Zealand population. A more inclusive approach is to use small neighbourhood of residence, classified according to degree of deprivation, as a marker of social circumstances (Lynch and Kaplan 2000; Carstairs 1995; Eames et al 1993; Salmond et al 1998a). This has the advantage of including the whole population, all age groups and both genders. It also avoids the numerator/denominator bias which is a potential problem with ‘cross-sectional’ mortality analyses, where the denominators come from a census and the numerators from unlinked death certificates.

Many analyses of social inequalities in mortality have used standardised mortality rates or ratios. As life expectancy is a commonly used metric in comparing the mortality experience of populations, we have constructed life tables, separately for each gender and three major ethnic groups, for small areas classified according to socioeconomic deprivation, for three-year periods centred around 1996–99.

Life expectancy has the advantage over other measures of mortality of being readily understood, and automatically compensates for differences in population age structure. As a form of survival analysis, the life table also enables a range of statistics to be estimated, including population survival curves and probabilities of surviving to, or dying between, different ages, as well as the more familiar statistic of life expectancy (at birth or other ages).

Method

The NZDep96 index of deprivation

NZDep96 combines nine variables from the 1996 Census, reflecting eight domains of deprivation (Table 1) (Salmond et al 1998a, 1998b). Each variable was calculated as the proportion of people with the specified deprivation characteristic in each small area, comprising one or more meshblocks. Meshblocks are the smallest geographical units defined by Statistics New Zealand, containing a median of 90 people. Each proportion is age standardised and, where necessary, adjusted for household composition.

NZDep96 is the score on the first component in a principal component analysis of these nine adjusted proportions. The score is a weighted sum of these proportions for each small area in New Zealand.

The NZDep96 index of deprivation scale ranges from decile 1 to decile 10, where a value of 10 indicates that the small area is in the most deprived 10 percent of areas in New Zealand.

Table 1: Variables included in NZDep96

| | Variable | Description |
|---|----------------|--|
| 1 | Communication | People with no access to a telephone |
| 2 | Income | People aged 18–59 receiving a means-tested benefit |
| 3 | Employment | People aged 18–59 unemployed |
| 4 | Income | People living in households with equivalised* income below an income threshold |
| 5 | Transport | People with no access to a car |
| 6 | Support | People aged < 60 living in a single-parent family |
| 7 | Qualifications | People aged 18–59 without any qualifications |
| 8 | Owned home | People not living in own home |
| 9 | Living space | People living in households below equivalised* bedroom occupancy threshold |

* Equivalisation = methods used to control for household composition.

Life table construction

Life tables were produced for the three-year periods 1995–97, 1996–98, 1997–99 and 1998–2000 for the whole New Zealand population and separately for three ethnic groups (European, Māori and Pacific) defined by the total ethnic group concept, by gender, using standard demographic methods (SNZ 1999).

Abridged life tables were produced for all 10 NZDep96 deciles for the total New Zealand population and the European/Other ethnic group (here referred to simply as the European ethnic group). For the Māori and Pacific ethnic groups, deprivation deciles were combined in order to obtain sufficient numbers for reliable analysis. The decile groupings for the Māori ethnic group were 1–7, 8–9 and 10, and for the Pacific ethnic group the groupings were deciles 1–8 and 9–10.

The population used in the construction of the 1995–97 life tables was the estimated resident population at 30 June 1996 (the mid-point for the period 1995–97). Birth and death data used in the construction of the life tables were the averages for the three years 1995–1997. For the Māori, Pacific and European ethnic group analyses, the data used are for 1996 and 1997, and figures for 1995 were estimated from these, because of changes in the definitions of ethnicity that occurred in 1995.

Similar methods were used to construct the 1996–98, 1997–99 and 1998–2000 life tables, thereby generating four series of life tables based on three-year moving averages spanning the period between the 1996 and 2001 censuses.

Trend analysis

Trend analysis was carried out by:

- examining changes in life expectancy for each decile from 1995–97 to 1998–2000
- analysing changes in life expectancy differentials between decile 1 and the other deciles over the study period.

More advanced statistical tests for trend were not done because of limitations in the data and method, including:

- the proportion of deaths with meshblock unspecified, which varied over time, from 7.2 percent of all deaths in 1996 to 2.2 percent in 2000
- the assumption that the degree of deprivation of each meshblock remains stable from one census to the next.

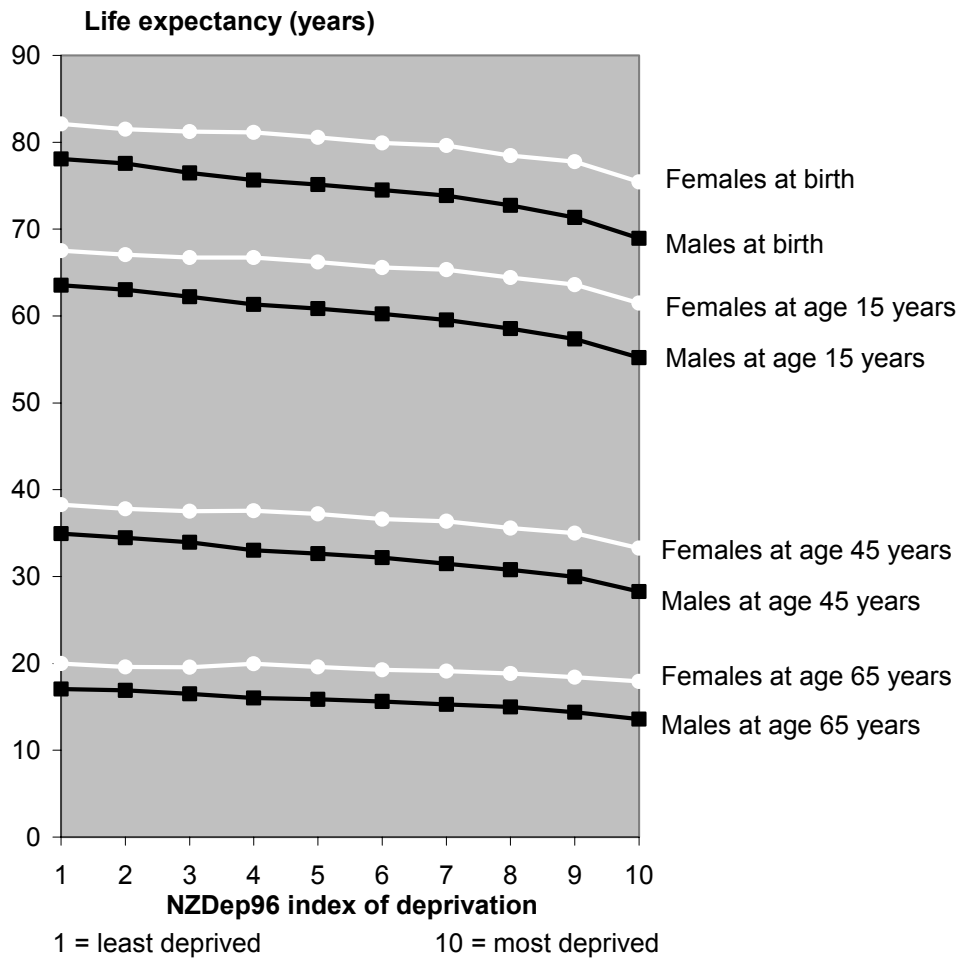
Results

1995–97 baseline

Life expectancy at birth declined markedly as the deprivation of the area of residence increased (Figure 1). A similar pattern was found at ages 15, 45 and 65 years. For detailed results the abridged life tables should be consulted. (These are available from the Ministry of Health on request. Life tables for the total population for the most recent period [1998–2000] are included as an appendix to this report to illustrate the sort of information available.)

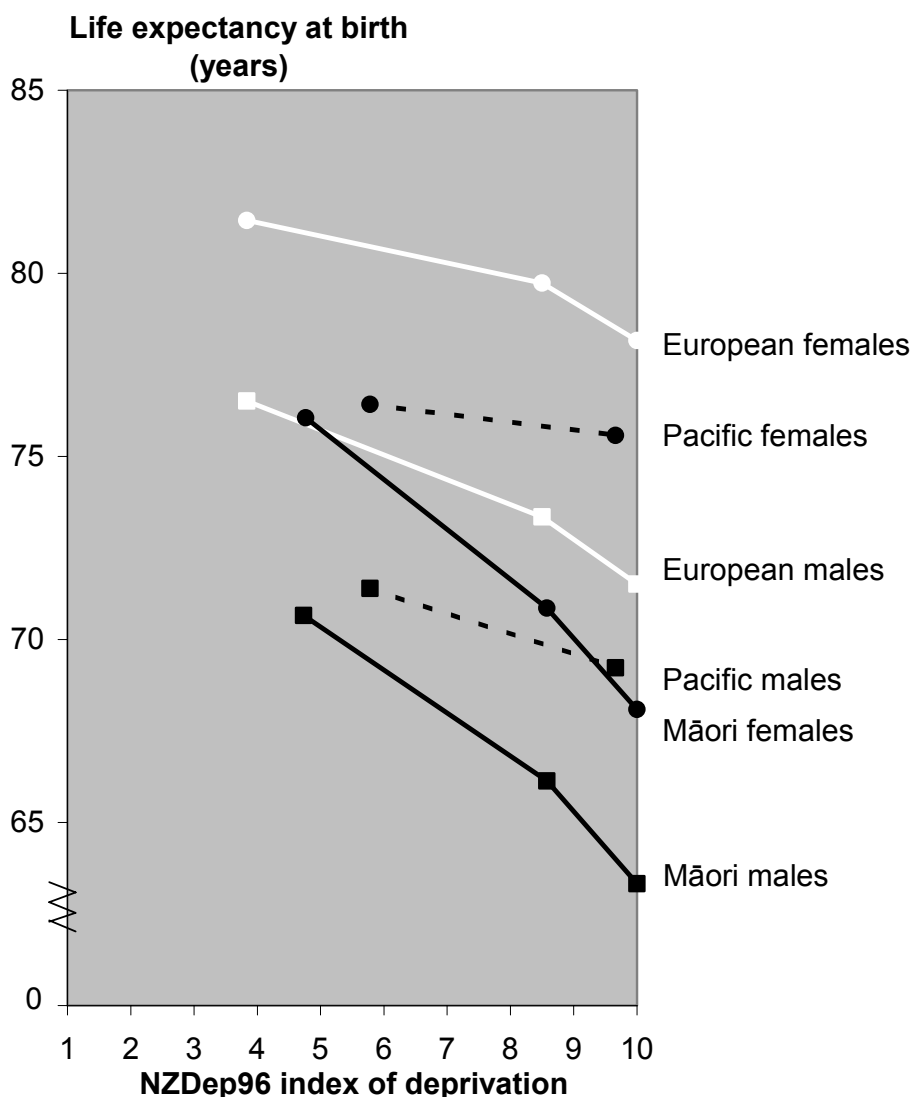
For males, there was a nine-year difference in life expectancy at birth between the least deprived and the most deprived tenths of New Zealand society (since approximately 10 percent of the population live in each of the area deprivation deciles). For women this difference was smaller, but still over 6.5 years. The gender difference in life expectancy at birth increases between deciles 1 and 10, from approximately 4.0 years to 6.5 years.

Figure 1: Life expectancy at four ages, by NZDep96, for the total New Zealand population



Māori life expectancy at birth was shorter than European life expectancy. Using population-weighted average life expectancy over the first seven deciles for Europeans, the difference between European and Māori life expectancies within this deprivation stratum was 5.8 years for males and 5.3 years for females (Figure 2). At the 10th decile – the most deprived – the differential increased to 8.2 years for males and 10.1 years for females.

Figure 2: Life expectancy at birth, by aggregated NZDep96 deprivation decile, for the Māori, Pacific and European ethnic groups*



* Population-weighted midpoints of aggregated NZDep96 deciles differ for each ethnic group.

The situation was less severe for the Pacific ethnic group, perhaps partly due to a ‘healthy migrant’ effect and return migration of older Pacific people. Overall, in the first eight deciles Pacific people had shorter life expectancies at birth than Europeans by, on average, 4.7 years for males and 4.8 years for females. In the two most deprived deciles combined, the differential was 3.1 years for males and 3.4 years for females.

For both genders the survival disadvantage of decile 10 compared to decile 1 residents is least evident in children and younger adults but increases thereafter, becoming marked in middle age and beyond – reflecting higher chronic disease risk at older ages (Table 2).

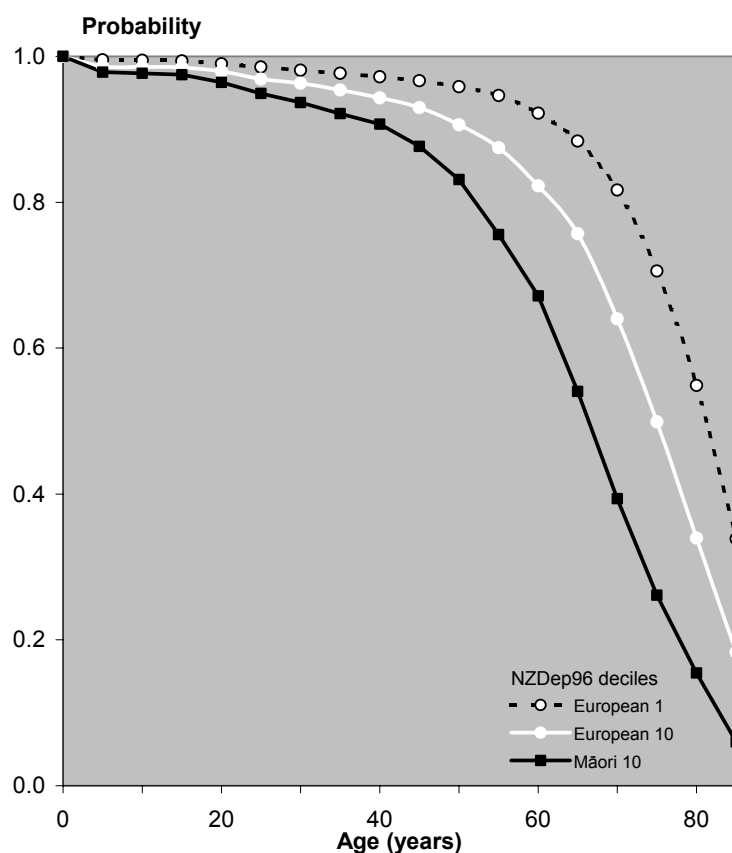
National cumulative survival curves for males and females are shown in Figures 3 and 4 for Europeans in the least and most deprived deciles, and for Māori in the most deprived decile (there are insufficient Māori in the least deprived decile to provide reliable data).

Table 2: Probability of surviving life cycle stages for least and most deprived NZDep96 deciles, by gender

| | Males | | Females | |
|-------|-----------|-----------|----------|-----------|
| | Decile* 1 | Decile 10 | Decile 1 | Decile 10 |
| 0–14 | 0.994 | 0.982 | 0.995 | 0.986 |
| 15–24 | 0.991 | 0.979 | 0.997 | 0.991 |
| 25–44 | 0.981 | 0.946 | 0.989 | 0.969 |
| 45–64 | 0.912 | 0.753 | 0.937 | 0.821 |
| 65–84 | 0.373 | 0.226 | 0.533 | 0.420 |

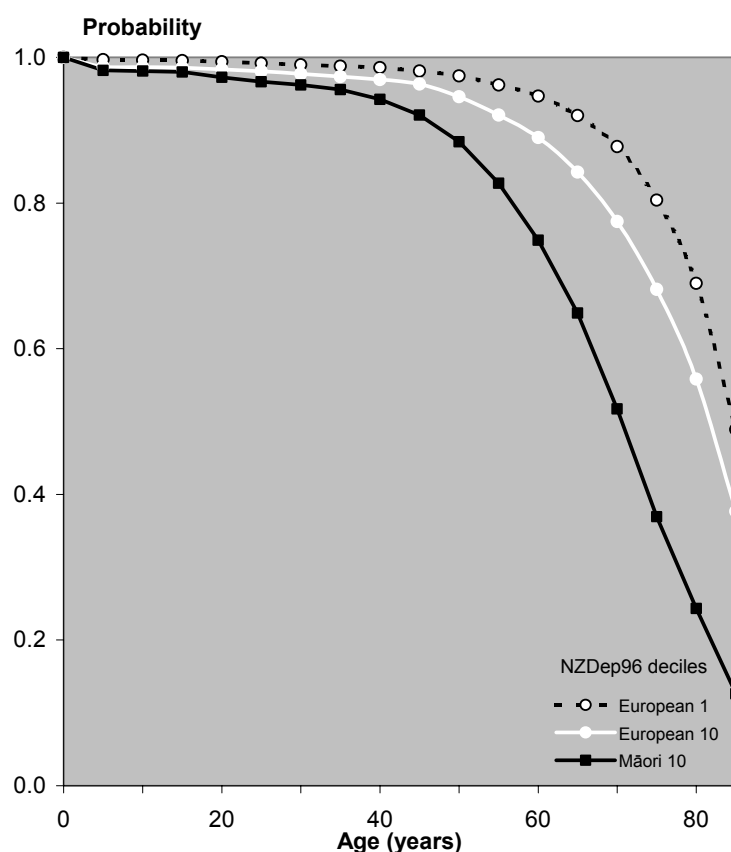
* NZDep96 decile 1 is least deprived, decile 10 is most deprived.

Figure 3: Selected cumulative survival curves, by deprivation and ethnicity,* males



* There are insufficient Māori in deprivation decile 1 to give a reliable curve.

Figure 4: Selected cumulative survival curves, by deprivation and ethnicity,* females



* There are insufficient Māori in deprivation decile 1 to give a reliable curve.

The survival curves graphically demonstrate the lower survival chances of decile 10 compared to decile 1 residents at all ages, and of Māori compared to Europeans within decile 10. The especially poor survival chances of Māori decile 10 females compared with other females are very apparent.

The survivorship advantage of decile 1 residents is greatest in middle age, and smaller at both extremes of age. This accounts for the rectangularisation of the decile 1 survival curve compared to the decile 10 curve (for both genders).

Trends from 1995–97 to 1998–2000

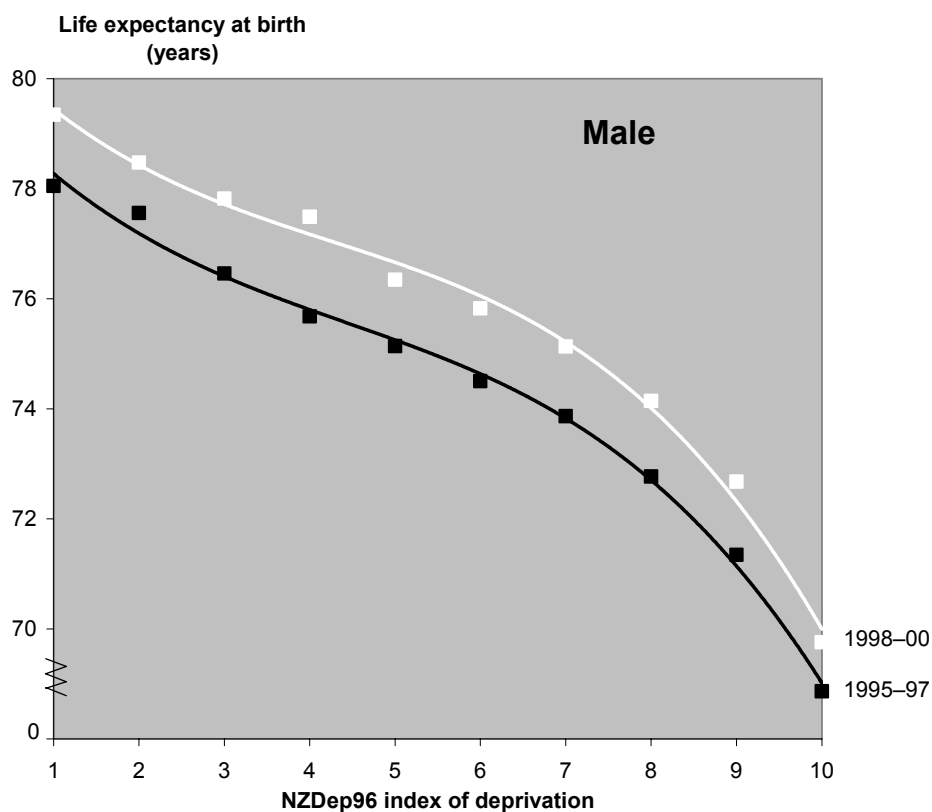
In this section, trends in life expectancy at birth for the whole New Zealand population are reported. Similar patterns were exhibited in life expectancies at other ages. Trend analysis could not be done separately for ethnic groups other than Europeans (data not shown), because of data limitations.

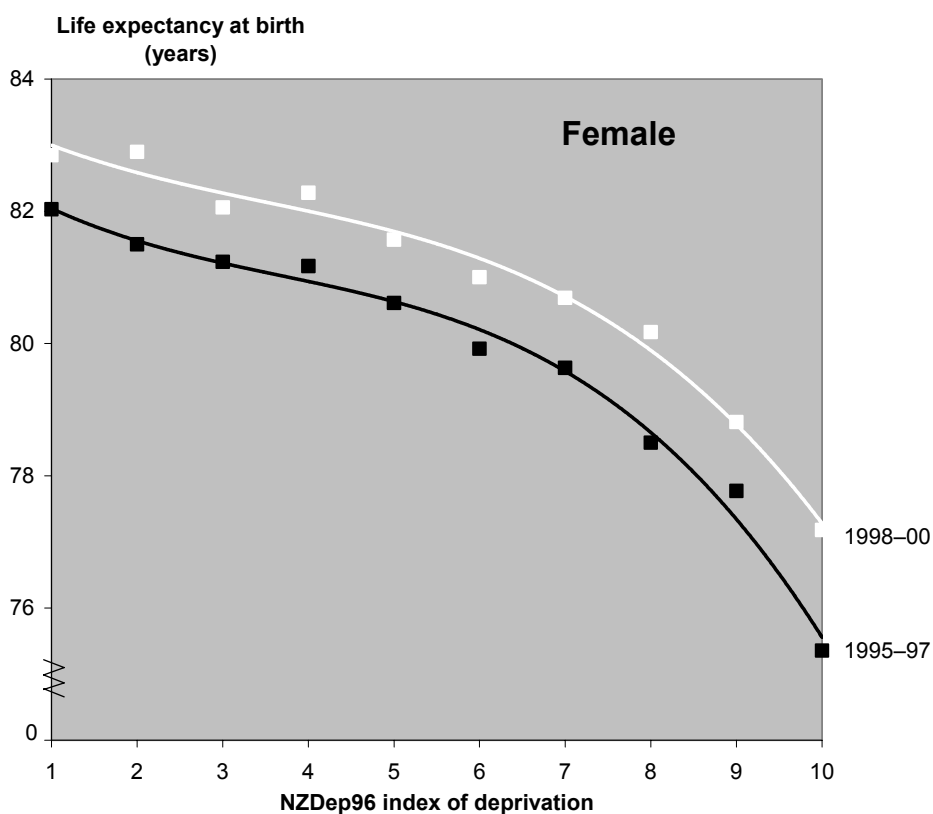
Trends in life expectancy at birth for the whole population by deprivation decile are shown in Table 3. Inter-decile patterns in 1995–97 and 1998–2000 (the beginning and end of the study period) are fitted with a gradient curve and are plotted in Figure 5.

Table 3: Life expectancy at birth, by deprivation decile, New Zealand, 1995–97 to 1998–2000

| Decile | Male | | | | Female | | | |
|--------|---------|---------|---------|-----------|---------|---------|---------|-----------|
| | 1995–97 | 1996–98 | 1997–99 | 1998–2000 | 1995–97 | 1996–98 | 1997–99 | 1998–2000 |
| 1 | 78.1 | 78.5 | 79.1 | 79.3 | 82.0 | 82.3 | 82.6 | 82.8 |
| 2 | 77.6 | 77.8 | 78.1 | 78.5 | 81.5 | 82.0 | 82.5 | 82.9 |
| 3 | 76.5 | 76.9 | 77.3 | 77.8 | 81.2 | 81.7 | 81.9 | 82.1 |
| 4 | 75.7 | 76.3 | 76.6 | 77.5 | 81.2 | 81.7 | 81.9 | 82.3 |
| 5 | 75.1 | 76.1 | 76.1 | 76.3 | 80.6 | 81.2 | 81.3 | 81.6 |
| 6 | 74.5 | 75.1 | 75.4 | 75.8 | 79.9 | 80.4 | 80.6 | 81.0 |
| 7 | 73.9 | 74.4 | 74.8 | 75.1 | 79.6 | 80.2 | 80.5 | 80.7 |
| 8 | 72.8 | 72.8 | 73.5 | 74.1 | 78.5 | 79.0 | 79.4 | 80.2 |
| 9 | 71.3 | 71.8 | 72.0 | 72.7 | 77.8 | 78.2 | 78.5 | 78.8 |
| 10 | 68.9 | 69.4 | 69.6 | 69.8 | 75.4 | 75.8 | 76.4 | 77.2 |

Figure 5: Life expectancy at birth, by deprivation decile, New Zealand, 1995–97 and 1998–2000





Changes in life expectancy at birth were almost uniform across all deciles. A parallel upward shift in the deprivation gradient in life expectancy at birth is observed over the period. Visually, there is no evidence for the gradient becoming steeper or shallower, for either gender.

The magnitude of change in life expectancy at birth for each decile between 1995–97 and 1998–2000 is summarised in Table 4. The increases fall into a relatively narrow range for all deprivation deciles (for both genders), averaging about 1.25 years of life (or an annualised average of 0.3 years of life per calendar year).

Table 4: Increases in life expectancy at birth, by deprivation decile, whole population, 1995–97 to 1998–2000

| Decile | Increases in LE (years) | |
|--------|-------------------------|--------|
| | Male | Female |
| 1 | 1.3 | 0.8 |
| 2 | 0.9 | 1.4 |
| 3 | 1.4 | 0.8 |
| 4 | 1.8 | 1.1 |
| 5 | 1.2 | 1.0 |
| 6 | 1.3 | 1.1 |
| 7 | 1.3 | 1.1 |
| 8 | 1.4 | 1.7 |
| 9 | 1.3 | 1.0 |
| 10 | 0.9 | 1.8 |

Another way of assessing change in the slope of the deprivation gradient over time is to measure changes in the average disparity between decile 1 and all other deciles. This summary measure provides information for the intervening years as well as the two end-points. The average disparity is summarised in Table 5.

Table 5: Average disparity in life expectancy at birth between the least deprived and other deciles, whole population, 1995–97 to 1998–2000

| | Male | | | | Female | | | |
|-------------------------|---------|---------|---------|-----------|---------|---------|---------|-----------|
| | 1995–97 | 1996–98 | 1997–99 | 1998–2000 | 1995–97 | 1996–98 | 1997–99 | 1998–2000 |
| Average of deciles 2–10 | 4.0 | 4.0 | 4.2 | 4.0 | 2.5 | 2.3 | 2.3 | 2.1 |

For males, the disparity in life expectancy at birth has stayed largely unchanged over the period. For females, the average disparity between decile 1 and all other deciles seems to have reduced marginally, though this apparent trend is largely caused by greater-than-average increases in life expectancy at birth for females in deciles 8 and 10 over the study period.

Discussion

The relationship between small area deprivation and life expectancy is strong. The analyses presented here are based on six years of national mortality data (five for ethnic-specific analyses), although caution should be exercised on account of the small numbers of deaths recorded in some of the younger age groups. In some cases minor adjustments were made to the data, or rates were smoothed. It should also be noted that deprivation of area of residence was measured for death records only, not for birth records. While it may be reasonable to expect life expectancy to be influenced by the deprivation of area of residence of the parents at the time of birth, such conclusions cannot be drawn from the life table analyses presented here.

The difference in life expectancy at birth between extreme deprivation deciles – approximately nine years for males and seven years for females – is similar to that found in the United Kingdom (Acheson 1998). If everyone enjoyed the survival chances of those in the least deprived 10 percent of small areas, life expectancy at birth in the late 1990s would have been approximately 82 years for females and 78 years for males. Furthermore, the narrowing of the gender gap in life expectancy at birth from 6.5 years in the most deprived areas to only 4.0 years in the least deprived areas highlights the scope that still exists for survival gains by males – especially class males living in more deprived areas – in New Zealand.

The association between life expectancy and deprivation is seen for all three major ethnic groups. Māori life expectancy at birth was consistently less than European life expectancy at birth, regardless of the level of deprivation. The analyses are less robust for Pacific peoples, partly because of small numbers of deaths, and partly because of distortions from migration effects.

To date, research and interventions related to Māori health status have focused on behaviours, postulated genetic differences and culture. However, other authors have noted that these approaches locate the problem within the disadvantaged group and fail to acknowledge the role of the structural features of society that systematically disadvantage some groups (Jones 2000; Pomare et al 1995). For example, Jones (2000) argues that institutional racism – differential access to the goods, services and opportunities of society by ethnicity – has a pervasively negative effect on the health of both minority and majority ethnic groups. The results reported here provide supportive evidence for the joint effect of deprivation and discrimination on the survival chances of Māori.

Analysis of trends in the deprivation gradient in life expectancy at birth (or other ages) failed to show convincing evidence of change in slope over the study period. However, the analysis had to be restricted to the whole population or European ethnic group only, and covered only the relatively short period from 1995–97 to 1998–2000. If this method is to be useful for monitoring trends in social inequalities in health, it will be necessary to overcome data limitations inhibiting full ethnic analysis, and to develop ‘crosswalks’ between deprivation indices based on different censuses. These technical developments are in progress.

Conclusion

Monitoring socioeconomic inequalities in health is an important responsibility of the Ministry of Health (Howden-Chapman and Tobias 2000; Ministry of Health 1999). The New Zealand Census Mortality Study (Blakely et al 2000), which is a record linkage study that creates a cohort study of the New Zealand population followed up for several years for mortality, and the unlinked occupational class mortality studies of Pearce et al (1983a, 1983b, 1984, 1986, 1991, 1993, in preparation) represent robust tools for monitoring socioeconomic mortality gradients. However, these analyses are restricted to a 5- or 10-year periodicity and fail to include the whole population (because of failures in record matching and non-participation of individuals in the labour force, respectively).

The small area deprivation analysis of life expectancy reported here could be repeated regularly (the trend analysis suggests that three- to five-yearly monitoring would be appropriate), which would provide a useful complement to these other approaches. Taken together, the three methods would provide a comprehensive, robust and timely system for monitoring trends in socioeconomic, geographic, ethnic and gender inequalities in survival chances, both globally and by cause (the life table analyses could examine the contribution of different causes of death to the deprivation gradient using cause-deleted life table methods) (Ministry of Health 2001).

Extension from analyses of (age-standardised) mortality rates and life table indicators (life expectancy at different ages, probabilities of surviving different life cycle stages, and population survival curves) to analysis of person-years of life lost should also be considered, as this would provide a better indicator of social variation in the *prematurity* of mortality (Ministry of Health 1999). Causal analysis could also be extended from the level of diseases to risk factors (for example, smoking) (Ministry of Health 2001) by using population-attributable risk methods in conjunction with cause-deleted life tables.

Appendix: Abridged Deprivation Life Tables, Total New Zealand Population, 1998–2000

Table A1: Total population – deprivation group 1

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,764 | 278 | 0.99722 | 0.00278 | 0.00279 | 0.99890 | 79.3 |
| 1 | 99,722 | 398,643 | 122 | 0.99878 | 0.00122 | 0.00031 | . | 78.6 |
| 5 | 99,600 | 497,858 | 56 | 0.99943 | 0.00057 | 0.00011 | 0.99928 | 74.7 |
| 10 | 99,543 | 497,501 | 86 | 0.99914 | 0.00086 | 0.00017 | 0.99842 | 69.7 |
| 15 | 99,457 | 496,717 | 228 | 0.99771 | 0.00229 | 0.00046 | 0.99594 | 64.8 |
| 20 | 99,230 | 494,698 | 580 | 0.99415 | 0.00585 | 0.00117 | 0.99486 | 59.9 |
| 25 | 98,650 | 492,155 | 437 | 0.99557 | 0.00443 | 0.00089 | 0.99605 | 55.2 |
| 30 | 98,212 | 490,211 | 340 | 0.99653 | 0.00347 | 0.00069 | 0.99625 | 50.5 |
| 35 | 97,872 | 488,373 | 395 | 0.99596 | 0.00404 | 0.00081 | 0.99579 | 45.6 |
| 40 | 97,477 | 486,319 | 427 | 0.99562 | 0.00438 | 0.00088 | 0.99480 | 40.8 |
| 45 | 97,050 | 483,787 | 586 | 0.99396 | 0.00604 | 0.00121 | 0.99106 | 36.0 |
| 50 | 96,465 | 479,464 | 1,144 | 0.98815 | 0.01185 | 0.00238 | 0.98398 | 31.2 |
| 55 | 95,321 | 471,785 | 1,928 | 0.97977 | 0.02023 | 0.00409 | 0.96819 | 26.5 |
| 60 | 93,393 | 456,778 | 4,075 | 0.95637 | 0.04363 | 0.00892 | 0.94334 | 22.0 |
| 65 | 89,318 | 430,896 | 6,279 | 0.92971 | 0.07029 | 0.01457 | 0.90351 | 17.9 |
| 70 | 83,040 | 389,318 | 10,353 | 0.87533 | 0.12467 | 0.02659 | 0.82932 | 14.1 |
| 75 | 72,687 | 322,870 | 16,227 | 0.77676 | 0.22324 | 0.05026 | 0.72449 | 10.7 |
| 80 | 56,461 | 233,916 | 19,355 | 0.65720 | 0.34280 | 0.08274 | 0.48864 | 8.1 |
| 85 | 37,106 | 223,527 | 37,106 | 0.00000 | 1.00000 | 0.16600 | . | 6.0 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,730 | 317 | 0.99683 | 0.00317 | 0.00318 | 0.99915 | 82.8 |
| 1 | 99,683 | 398,562 | 84 | 0.99916 | 0.00084 | 0.00021 | . | 82.1 |
| 5 | 99,598 | 497,870 | 49 | 0.99951 | 0.00049 | 0.00010 | 0.99947 | 78.2 |
| 10 | 99,550 | 497,604 | 58 | 0.99942 | 0.00058 | 0.00012 | 0.99890 | 73.2 |
| 15 | 99,492 | 497,057 | 161 | 0.99838 | 0.00162 | 0.00032 | 0.99857 | 68.3 |
| 20 | 99,331 | 496,348 | 123 | 0.99877 | 0.00123 | 0.00025 | 0.99862 | 63.4 |
| 25 | 99,208 | 495,662 | 152 | 0.99847 | 0.00153 | 0.00031 | 0.99802 | 58.4 |
| 30 | 99,056 | 494,681 | 240 | 0.99758 | 0.00242 | 0.00049 | 0.99744 | 53.5 |
| 35 | 98,816 | 493,417 | 266 | 0.99731 | 0.00269 | 0.00054 | 0.99638 | 48.6 |
| 40 | 98,551 | 491,630 | 449 | 0.99544 | 0.00456 | 0.00091 | 0.99469 | 43.8 |
| 45 | 98,101 | 489,018 | 595 | 0.99393 | 0.00607 | 0.00122 | 0.99117 | 39.0 |
| 50 | 97,506 | 484,700 | 1,132 | 0.98839 | 0.01161 | 0.00234 | 0.98644 | 34.2 |
| 55 | 96,374 | 478,128 | 1,497 | 0.98447 | 0.01553 | 0.00313 | 0.97642 | 29.6 |
| 60 | 94,877 | 466,853 | 3,013 | 0.96824 | 0.03176 | 0.00645 | 0.96449 | 25.0 |
| 65 | 91,864 | 450,277 | 3,617 | 0.96063 | 0.03937 | 0.00803 | 0.94683 | 20.7 |
| 70 | 88,247 | 426,335 | 5,959 | 0.93247 | 0.06753 | 0.01398 | 0.90181 | 16.5 |
| 75 | 82,287 | 384,473 | 10,786 | 0.86893 | 0.13107 | 0.02805 | 0.80941 | 12.5 |
| 80 | 71,502 | 311,198 | 18,524 | 0.74092 | 0.25908 | 0.05953 | 0.51545 | 9.0 |
| 85 | 52,977 | 331,048 | 52,977 | 0.00000 | 1.00000 | 0.16003 | . | 6.2 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A2: Total population – deprivation group 2

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,659 | 401 | 0.99599 | 0.00401 | 0.00403 | 0.99874 | 78.5 |
| 1 | 99,599 | 398,101 | 147 | 0.99852 | 0.00148 | 0.00037 | . | 77.8 |
| 5 | 99,452 | 497,130 | 51 | 0.99948 | 0.00052 | 0.00010 | 0.99915 | 73.9 |
| 10 | 99,400 | 496,707 | 118 | 0.99881 | 0.00119 | 0.00024 | 0.99718 | 68.9 |
| 15 | 99,282 | 495,305 | 442 | 0.99554 | 0.00446 | 0.00089 | 0.99498 | 64.0 |
| 20 | 98,840 | 492,817 | 553 | 0.99441 | 0.00559 | 0.00112 | 0.99496 | 59.3 |
| 25 | 98,287 | 490,332 | 441 | 0.99551 | 0.00449 | 0.00090 | 0.99594 | 54.6 |
| 30 | 97,846 | 488,339 | 356 | 0.99636 | 0.00364 | 0.00073 | 0.99580 | 49.8 |
| 35 | 97,490 | 486,288 | 464 | 0.99524 | 0.00476 | 0.00095 | 0.99463 | 45.0 |
| 40 | 97,026 | 483,675 | 581 | 0.99401 | 0.00599 | 0.00120 | 0.99245 | 40.2 |
| 45 | 96,444 | 480,021 | 880 | 0.99087 | 0.00913 | 0.00183 | 0.98905 | 35.5 |
| 50 | 95,564 | 474,766 | 1,221 | 0.98722 | 0.01278 | 0.00257 | 0.98064 | 30.8 |
| 55 | 94,343 | 465,574 | 2,455 | 0.97397 | 0.02603 | 0.00527 | 0.96674 | 26.1 |
| 60 | 91,887 | 450,087 | 3,739 | 0.95931 | 0.04069 | 0.00831 | 0.94233 | 21.8 |
| 65 | 88,148 | 424,132 | 6,643 | 0.92464 | 0.07536 | 0.01566 | 0.89844 | 17.6 |
| 70 | 81,505 | 381,056 | 10,587 | 0.87010 | 0.12990 | 0.02778 | 0.82871 | 13.8 |
| 75 | 70,917 | 315,785 | 15,521 | 0.78114 | 0.21886 | 0.04915 | 0.71248 | 10.5 |
| 80 | 55,397 | 224,992 | 20,796 | 0.62459 | 0.37541 | 0.09243 | 0.47385 | 7.7 |
| 85 | 34,600 | 202,626 | 34,600 | 0.00000 | 1.00000 | 0.17076 | . | 5.9 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,809 | 224 | 0.99776 | 0.00224 | 0.00225 | 0.99914 | 82.9 |
| 1 | 99,776 | 398,926 | 89 | 0.99911 | 0.00089 | 0.00022 | . | 82.1 |
| 5 | 99,687 | 498,306 | 52 | 0.99948 | 0.00052 | 0.00010 | 0.99949 | 78.2 |
| 10 | 99,635 | 498,051 | 50 | 0.99950 | 0.00050 | 0.00010 | 0.99840 | 73.2 |
| 15 | 99,585 | 497,256 | 268 | 0.99731 | 0.00269 | 0.00054 | 0.99783 | 68.2 |
| 20 | 99,317 | 496,178 | 163 | 0.99835 | 0.00165 | 0.00033 | 0.99852 | 63.4 |
| 25 | 99,154 | 495,442 | 131 | 0.99868 | 0.00132 | 0.00026 | 0.99830 | 58.5 |
| 30 | 99,023 | 494,600 | 206 | 0.99792 | 0.00208 | 0.00042 | 0.99773 | 53.6 |
| 35 | 98,817 | 493,478 | 243 | 0.99754 | 0.00246 | 0.00049 | 0.99670 | 48.7 |
| 40 | 98,574 | 491,850 | 408 | 0.99586 | 0.00414 | 0.00083 | 0.99383 | 43.8 |
| 45 | 98,166 | 488,817 | 806 | 0.99179 | 0.00821 | 0.00165 | 0.99133 | 39.0 |
| 50 | 97,361 | 484,577 | 890 | 0.99085 | 0.00915 | 0.00184 | 0.98603 | 34.3 |
| 55 | 96,470 | 477,810 | 1,817 | 0.98117 | 0.01883 | 0.00380 | 0.97624 | 29.6 |
| 60 | 94,654 | 466,458 | 2,724 | 0.97122 | 0.02878 | 0.00584 | 0.96177 | 25.1 |
| 65 | 91,929 | 448,623 | 4,409 | 0.95203 | 0.04797 | 0.00983 | 0.94149 | 20.8 |
| 70 | 87,520 | 422,373 | 6,091 | 0.93041 | 0.06959 | 0.01442 | 0.89341 | 16.7 |
| 75 | 81,429 | 377,351 | 11,918 | 0.85364 | 0.14636 | 0.03158 | 0.81006 | 12.7 |
| 80 | 69,511 | 305,679 | 16,751 | 0.75902 | 0.24098 | 0.05480 | 0.53673 | 9.5 |
| 85 | 52,760 | 354,153 | 52,760 | 0.00000 | 1.00000 | 0.14898 | . | 6.7 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A3: Total population – deprivation group 3

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,636 | 428 | 0.99572 | 0.00428 | 0.00430 | 0.99882 | 77.8 |
| 1 | 99,572 | 398,031 | 128 | 0.99872 | 0.00128 | 0.00032 | . | 77.2 |
| 5 | 99,444 | 497,081 | 55 | 0.99944 | 0.00056 | 0.00011 | 0.99911 | 73.3 |
| 10 | 99,389 | 496,641 | 121 | 0.99878 | 0.00122 | 0.00024 | 0.99773 | 68.3 |
| 15 | 99,268 | 495,513 | 331 | 0.99667 | 0.00333 | 0.00067 | 0.99646 | 63.4 |
| 20 | 98,937 | 493,760 | 370 | 0.99626 | 0.00374 | 0.00075 | 0.99555 | 58.6 |
| 25 | 98,567 | 491,564 | 508 | 0.99485 | 0.00515 | 0.00103 | 0.99450 | 53.8 |
| 30 | 98,059 | 488,862 | 573 | 0.99415 | 0.00585 | 0.00117 | 0.99414 | 49.1 |
| 35 | 97,486 | 485,998 | 572 | 0.99413 | 0.00587 | 0.00118 | 0.99377 | 44.3 |
| 40 | 96,913 | 482,970 | 639 | 0.99341 | 0.00659 | 0.00132 | 0.99244 | 39.6 |
| 45 | 96,274 | 479,317 | 822 | 0.99146 | 0.00854 | 0.00171 | 0.98839 | 34.8 |
| 50 | 95,453 | 473,752 | 1,405 | 0.98528 | 0.01472 | 0.00296 | 0.97724 | 30.1 |
| 55 | 94,048 | 462,970 | 2,908 | 0.96908 | 0.03092 | 0.00628 | 0.95845 | 25.5 |
| 60 | 91,140 | 443,733 | 4,787 | 0.94748 | 0.05252 | 0.01079 | 0.93382 | 21.2 |
| 65 | 86,353 | 414,369 | 6,959 | 0.91941 | 0.08059 | 0.01679 | 0.88911 | 17.3 |
| 70 | 79,394 | 368,421 | 11,420 | 0.85616 | 0.14384 | 0.03100 | 0.81618 | 13.6 |
| 75 | 67,974 | 300,698 | 15,669 | 0.76949 | 0.23051 | 0.05211 | 0.72608 | 10.4 |
| 80 | 52,305 | 218,331 | 17,278 | 0.66967 | 0.33033 | 0.07914 | 0.46637 | 7.8 |
| 85 | 35,027 | 190,809 | 35,027 | 0.00000 | 1.00000 | 0.18357 | . | 5.4 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,675 | 383 | 0.99617 | 0.00383 | 0.00384 | 0.99907 | 82.1 |
| 1 | 99,617 | 398,293 | 88 | 0.99911 | 0.00089 | 0.00022 | . | 81.4 |
| 5 | 99,529 | 497,507 | 55 | 0.99944 | 0.00056 | 0.00011 | 0.99946 | 77.4 |
| 10 | 99,474 | 497,237 | 53 | 0.99947 | 0.00053 | 0.00011 | 0.99854 | 72.5 |
| 15 | 99,421 | 496,513 | 237 | 0.99762 | 0.00238 | 0.00048 | 0.99792 | 67.5 |
| 20 | 99,184 | 495,482 | 176 | 0.99823 | 0.00177 | 0.00035 | 0.99816 | 62.7 |
| 25 | 99,009 | 494,569 | 190 | 0.99808 | 0.00192 | 0.00038 | 0.99802 | 57.8 |
| 30 | 98,819 | 493,589 | 202 | 0.99795 | 0.00205 | 0.00041 | 0.99784 | 52.9 |
| 35 | 98,617 | 492,522 | 224 | 0.99772 | 0.00228 | 0.00046 | 0.99645 | 48.0 |
| 40 | 98,392 | 490,772 | 475 | 0.99517 | 0.00483 | 0.00097 | 0.99383 | 43.1 |
| 45 | 97,917 | 487,744 | 736 | 0.99249 | 0.00751 | 0.00151 | 0.99027 | 38.3 |
| 50 | 97,181 | 482,996 | 1,164 | 0.98803 | 0.01197 | 0.00241 | 0.98463 | 33.6 |
| 55 | 96,017 | 475,572 | 1,806 | 0.98119 | 0.01881 | 0.00380 | 0.97552 | 28.9 |
| 60 | 94,211 | 463,928 | 2,852 | 0.96973 | 0.03027 | 0.00615 | 0.95671 | 24.4 |
| 65 | 91,360 | 443,844 | 5,182 | 0.94328 | 0.05672 | 0.01167 | 0.92829 | 20.1 |
| 70 | 86,178 | 412,015 | 7,550 | 0.91239 | 0.08761 | 0.01832 | 0.88904 | 16.2 |
| 75 | 78,628 | 366,298 | 10,737 | 0.86345 | 0.13655 | 0.02931 | 0.80529 | 12.5 |
| 80 | 67,891 | 294,976 | 17,792 | 0.73793 | 0.26207 | 0.06032 | 0.52201 | 9.1 |
| 85 | 50,099 | 322,139 | 50,099 | 0.00000 | 1.00000 | 0.15552 | . | 6.4 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A4: Total population – deprivation group 4

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,544 | 537 | 0.99463 | 0.00537 | 0.00539 | 0.99881 | 77.5 |
| 1 | 99,463 | 397,603 | 125 | 0.99874 | 0.00126 | 0.00031 | . | 76.9 |
| 5 | 99,338 | 496,555 | 55 | 0.99945 | 0.00055 | 0.00011 | 0.99924 | 73.0 |
| 10 | 99,284 | 496,176 | 97 | 0.99902 | 0.00098 | 0.00020 | 0.99771 | 68.0 |
| 15 | 99,187 | 495,038 | 358 | 0.99639 | 0.00361 | 0.00072 | 0.99580 | 63.1 |
| 20 | 98,828 | 492,959 | 473 | 0.99521 | 0.00479 | 0.00096 | 0.99503 | 58.3 |
| 25 | 98,355 | 490,509 | 506 | 0.99485 | 0.00515 | 0.00103 | 0.99483 | 53.6 |
| 30 | 97,849 | 487,975 | 508 | 0.99481 | 0.00519 | 0.00104 | 0.99487 | 48.9 |
| 35 | 97,341 | 485,472 | 493 | 0.99493 | 0.00507 | 0.00102 | 0.99420 | 44.1 |
| 40 | 96,848 | 482,658 | 632 | 0.99347 | 0.00653 | 0.00131 | 0.99079 | 39.3 |
| 45 | 96,216 | 478,212 | 1,146 | 0.98809 | 0.01191 | 0.00240 | 0.98491 | 34.6 |
| 50 | 95,069 | 470,995 | 1,740 | 0.98169 | 0.01831 | 0.00370 | 0.97628 | 29.9 |
| 55 | 93,329 | 459,824 | 2,728 | 0.97077 | 0.02923 | 0.00593 | 0.95876 | 25.5 |
| 60 | 90,601 | 440,863 | 4,856 | 0.94640 | 0.05360 | 0.01101 | 0.93251 | 21.1 |
| 65 | 85,744 | 411,109 | 7,045 | 0.91783 | 0.08217 | 0.01714 | 0.88826 | 17.2 |
| 70 | 78,699 | 365,174 | 11,329 | 0.85605 | 0.14395 | 0.03102 | 0.80956 | 13.5 |
| 75 | 67,370 | 295,629 | 16,489 | 0.75525 | 0.24475 | 0.05578 | 0.70747 | 10.4 |
| 80 | 50,881 | 209,148 | 18,104 | 0.64420 | 0.35580 | 0.08656 | 0.48108 | 7.9 |
| 85 | 32,778 | 193,893 | 32,778 | 0.00000 | 1.00000 | 0.16905 | . | 5.9 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,721 | 328 | 0.99672 | 0.00328 | 0.00329 | 0.99891 | 82.3 |
| 1 | 99,672 | 398,450 | 119 | 0.99881 | 0.00119 | 0.00030 | . | 81.5 |
| 5 | 99,553 | 497,628 | 55 | 0.99945 | 0.00055 | 0.00011 | 0.99935 | 77.6 |
| 10 | 99,498 | 497,306 | 73 | 0.99926 | 0.00074 | 0.00015 | 0.99844 | 72.7 |
| 15 | 99,425 | 496,530 | 237 | 0.99761 | 0.00239 | 0.00048 | 0.99811 | 67.7 |
| 20 | 99,187 | 495,589 | 139 | 0.99860 | 0.00140 | 0.00028 | 0.99853 | 62.9 |
| 25 | 99,048 | 494,858 | 153 | 0.99845 | 0.00155 | 0.00031 | 0.99814 | 58.0 |
| 30 | 98,895 | 493,936 | 216 | 0.99782 | 0.00218 | 0.00044 | 0.99739 | 53.1 |
| 35 | 98,679 | 492,649 | 299 | 0.99697 | 0.00303 | 0.00061 | 0.99620 | 48.2 |
| 40 | 98,380 | 490,777 | 449 | 0.99543 | 0.00457 | 0.00092 | 0.99404 | 43.3 |
| 45 | 97,931 | 487,851 | 721 | 0.99264 | 0.00736 | 0.00148 | 0.98975 | 38.5 |
| 50 | 97,210 | 482,852 | 1,279 | 0.98685 | 0.01315 | 0.00265 | 0.98199 | 33.8 |
| 55 | 95,931 | 474,156 | 2,200 | 0.97707 | 0.02293 | 0.00464 | 0.97282 | 29.2 |
| 60 | 93,731 | 461,270 | 2,954 | 0.96848 | 0.03152 | 0.00640 | 0.95580 | 24.8 |
| 65 | 90,777 | 440,881 | 5,202 | 0.94270 | 0.05730 | 0.01180 | 0.92906 | 20.5 |
| 70 | 85,575 | 409,603 | 7,310 | 0.91458 | 0.08542 | 0.01785 | 0.88432 | 16.6 |
| 75 | 78,266 | 362,219 | 11,644 | 0.85122 | 0.14878 | 0.03215 | 0.79587 | 13.0 |
| 80 | 66,622 | 288,280 | 17,931 | 0.73085 | 0.26915 | 0.06220 | 0.55755 | 9.8 |
| 85 | 48,690 | 363,278 | 48,690 | 0.00000 | 1.00000 | 0.13403 | . | 7.5 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A5: Total population – deprivation group 5

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,531 | 552 | 0.99448 | 0.00552 | 0.00555 | 0.99855 | 76.3 |
| 1 | 99,448 | 397,482 | 155 | 0.99845 | 0.00155 | 0.00039 | . | 75.8 |
| 5 | 99,293 | 496,291 | 70 | 0.99930 | 0.00070 | 0.00014 | 0.99901 | 71.9 |
| 10 | 99,223 | 495,798 | 128 | 0.99871 | 0.00129 | 0.00026 | 0.99702 | 66.9 |
| 15 | 99,096 | 494,322 | 463 | 0.99533 | 0.00467 | 0.00094 | 0.99494 | 62.0 |
| 20 | 98,633 | 491,819 | 539 | 0.99454 | 0.00546 | 0.00110 | 0.99397 | 57.3 |
| 25 | 98,094 | 488,851 | 648 | 0.99339 | 0.00661 | 0.00133 | 0.99371 | 52.6 |
| 30 | 97,446 | 485,778 | 581 | 0.99404 | 0.00596 | 0.00120 | 0.99340 | 47.9 |
| 35 | 96,865 | 482,570 | 702 | 0.99275 | 0.00725 | 0.00145 | 0.99192 | 43.2 |
| 40 | 96,163 | 478,672 | 858 | 0.99108 | 0.00892 | 0.00179 | 0.98976 | 38.5 |
| 45 | 95,306 | 473,770 | 1,103 | 0.98843 | 0.01157 | 0.00233 | 0.98428 | 33.8 |
| 50 | 94,203 | 466,321 | 1,877 | 0.98008 | 0.01992 | 0.00402 | 0.97277 | 29.2 |
| 55 | 92,326 | 453,622 | 3,203 | 0.96531 | 0.03469 | 0.00706 | 0.95492 | 24.7 |
| 60 | 89,123 | 433,175 | 4,976 | 0.94417 | 0.05583 | 0.01149 | 0.92348 | 20.5 |
| 65 | 84,147 | 400,030 | 8,282 | 0.90157 | 0.09843 | 0.02070 | 0.87620 | 16.6 |
| 70 | 75,865 | 350,506 | 11,527 | 0.84806 | 0.15194 | 0.03289 | 0.81187 | 13.1 |
| 75 | 64,338 | 284,564 | 14,850 | 0.76919 | 0.23081 | 0.05218 | 0.70274 | 10.0 |
| 80 | 49,488 | 199,975 | 18,986 | 0.61635 | 0.38365 | 0.09494 | 0.44697 | 7.3 |
| 85 | 30,502 | 161,624 | 30,502 | 0.00000 | 1.00000 | 0.18872 | . | 5.3 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,794 | 243 | 0.99757 | 0.00243 | 0.00243 | 0.99894 | 81.6 |
| 1 | 99,757 | 398,818 | 106 | 0.99894 | 0.00106 | 0.00026 | . | 80.8 |
| 5 | 99,652 | 498,084 | 70 | 0.99930 | 0.00070 | 0.00014 | 0.99913 | 76.9 |
| 10 | 99,582 | 497,653 | 103 | 0.99897 | 0.00103 | 0.00021 | 0.99817 | 71.9 |
| 15 | 99,479 | 496,742 | 261 | 0.99737 | 0.00263 | 0.00053 | 0.99792 | 67.0 |
| 20 | 99,218 | 495,710 | 152 | 0.99847 | 0.00153 | 0.00031 | 0.99841 | 62.1 |
| 25 | 99,066 | 494,922 | 163 | 0.99835 | 0.00165 | 0.00033 | 0.99794 | 57.2 |
| 30 | 98,903 | 493,901 | 245 | 0.99752 | 0.00248 | 0.00050 | 0.99710 | 52.3 |
| 35 | 98,657 | 492,467 | 328 | 0.99668 | 0.00332 | 0.00067 | 0.99512 | 47.5 |
| 40 | 98,330 | 490,065 | 633 | 0.99356 | 0.00644 | 0.00129 | 0.99322 | 42.6 |
| 45 | 97,696 | 486,740 | 697 | 0.99287 | 0.00713 | 0.00143 | 0.99053 | 37.9 |
| 50 | 97,000 | 482,132 | 1,147 | 0.98818 | 0.01182 | 0.00238 | 0.98165 | 33.1 |
| 55 | 95,853 | 473,286 | 2,392 | 0.97505 | 0.02495 | 0.00505 | 0.97093 | 28.5 |
| 60 | 93,461 | 459,528 | 3,112 | 0.96671 | 0.03329 | 0.00677 | 0.95659 | 24.1 |
| 65 | 90,350 | 439,581 | 4,867 | 0.94613 | 0.05387 | 0.01107 | 0.92207 | 19.9 |
| 70 | 85,483 | 405,326 | 8,835 | 0.89665 | 0.10335 | 0.02180 | 0.87182 | 15.9 |
| 75 | 76,648 | 353,370 | 11,948 | 0.84412 | 0.15588 | 0.03381 | 0.79617 | 12.4 |
| 80 | 64,700 | 281,342 | 16,864 | 0.73936 | 0.26064 | 0.05994 | 0.53031 | 9.3 |
| 85 | 47,836 | 317,658 | 47,836 | 0.00000 | 1.00000 | 0.15059 | . | 6.6 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A6: Total population – deprivation group 6

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,466 | 628 | 0.99372 | 0.00628 | 0.00631 | 0.99818 | 75.8 |
| 1 | 99,372 | 397,130 | 179 | 0.99820 | 0.00180 | 0.00045 | . | 75.3 |
| 5 | 99,193 | 495,694 | 108 | 0.99891 | 0.00109 | 0.00022 | 0.99876 | 71.4 |
| 10 | 99,085 | 495,078 | 138 | 0.99861 | 0.00139 | 0.00028 | 0.99683 | 66.5 |
| 15 | 98,947 | 493,511 | 489 | 0.99506 | 0.00494 | 0.00099 | 0.99398 | 61.6 |
| 20 | 98,458 | 490,539 | 700 | 0.99289 | 0.00711 | 0.00143 | 0.99271 | 56.9 |
| 25 | 97,758 | 486,965 | 730 | 0.99253 | 0.00747 | 0.00150 | 0.99312 | 52.3 |
| 30 | 97,028 | 483,616 | 610 | 0.99371 | 0.00629 | 0.00126 | 0.99341 | 47.7 |
| 35 | 96,418 | 480,431 | 664 | 0.99311 | 0.00689 | 0.00138 | 0.99203 | 42.9 |
| 40 | 95,754 | 476,602 | 867 | 0.99094 | 0.00906 | 0.00182 | 0.98956 | 38.2 |
| 45 | 94,887 | 471,626 | 1,123 | 0.98817 | 0.01183 | 0.00238 | 0.98390 | 33.6 |
| 50 | 93,764 | 464,031 | 1,915 | 0.97958 | 0.02042 | 0.00413 | 0.97169 | 28.9 |
| 55 | 91,849 | 450,895 | 3,340 | 0.96364 | 0.03636 | 0.00741 | 0.95095 | 24.5 |
| 60 | 88,509 | 428,780 | 5,506 | 0.93779 | 0.06221 | 0.01284 | 0.91911 | 20.3 |
| 65 | 83,003 | 394,098 | 8,367 | 0.89920 | 0.10080 | 0.02123 | 0.87470 | 16.5 |
| 70 | 74,636 | 344,716 | 11,386 | 0.84745 | 0.15255 | 0.03303 | 0.80090 | 13.1 |
| 75 | 63,250 | 276,082 | 16,068 | 0.74596 | 0.25404 | 0.05820 | 0.68869 | 9.9 |
| 80 | 47,182 | 190,135 | 18,311 | 0.61191 | 0.38809 | 0.09631 | 0.46174 | 7.5 |
| 85 | 28,871 | 163,106 | 28,871 | 0.00000 | 1.00000 | 0.17701 | . | 5.6 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,616 | 452 | 0.99548 | 0.00452 | 0.00453 | 0.99863 | 81.0 |
| 1 | 99,548 | 397,916 | 138 | 0.99861 | 0.00139 | 0.00035 | . | 80.4 |
| 5 | 99,410 | 496,848 | 80 | 0.99919 | 0.00081 | 0.00016 | 0.99925 | 76.5 |
| 10 | 99,330 | 496,477 | 69 | 0.99931 | 0.00069 | 0.00014 | 0.99850 | 71.5 |
| 15 | 99,261 | 495,730 | 230 | 0.99768 | 0.00232 | 0.00046 | 0.99791 | 66.6 |
| 20 | 99,031 | 494,693 | 185 | 0.99813 | 0.00187 | 0.00037 | 0.99761 | 61.7 |
| 25 | 98,846 | 493,509 | 289 | 0.99708 | 0.00292 | 0.00059 | 0.99682 | 56.8 |
| 30 | 98,557 | 491,941 | 338 | 0.99657 | 0.00343 | 0.00069 | 0.99635 | 52.0 |
| 35 | 98,219 | 490,147 | 379 | 0.99614 | 0.00386 | 0.00077 | 0.99535 | 47.2 |
| 40 | 97,840 | 487,867 | 533 | 0.99455 | 0.00545 | 0.00109 | 0.99313 | 42.3 |
| 45 | 97,307 | 484,516 | 807 | 0.99170 | 0.00830 | 0.00167 | 0.98840 | 37.6 |
| 50 | 96,500 | 478,896 | 1,441 | 0.98507 | 0.01493 | 0.00301 | 0.97960 | 32.9 |
| 55 | 95,059 | 469,126 | 2,468 | 0.97404 | 0.02596 | 0.00526 | 0.96455 | 28.3 |
| 60 | 92,591 | 452,495 | 4,185 | 0.95480 | 0.04520 | 0.00925 | 0.94305 | 24.0 |
| 65 | 88,407 | 426,723 | 6,124 | 0.93073 | 0.06927 | 0.01435 | 0.91885 | 20.0 |
| 70 | 82,283 | 392,093 | 7,728 | 0.90608 | 0.09392 | 0.01971 | 0.87686 | 16.3 |
| 75 | 74,554 | 343,812 | 11,584 | 0.84462 | 0.15538 | 0.03369 | 0.80005 | 12.8 |
| 80 | 62,970 | 275,066 | 15,914 | 0.74727 | 0.25273 | 0.05786 | 0.54752 | 9.7 |
| 85 | 47,056 | 332,846 | 47,056 | 0.00000 | 1.00000 | 0.14137 | . | 7.1 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A7: Total population – deprivation group 7

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,497 | 592 | 0.99408 | 0.00592 | 0.00595 | 0.99861 | 75.1 |
| 1 | 99,408 | 397,400 | 117 | 0.99883 | 0.00117 | 0.00029 | . | 74.6 |
| 5 | 99,292 | 496,208 | 100 | 0.99899 | 0.00101 | 0.00020 | 0.99892 | 70.7 |
| 10 | 99,192 | 495,674 | 114 | 0.99885 | 0.00115 | 0.00023 | 0.99700 | 65.7 |
| 15 | 99,078 | 494,187 | 481 | 0.99514 | 0.00486 | 0.00097 | 0.99467 | 60.8 |
| 20 | 98,597 | 491,554 | 572 | 0.99420 | 0.00580 | 0.00116 | 0.99361 | 56.1 |
| 25 | 98,025 | 488,415 | 683 | 0.99303 | 0.00697 | 0.00140 | 0.99292 | 51.4 |
| 30 | 97,341 | 484,958 | 699 | 0.99282 | 0.00718 | 0.00144 | 0.99298 | 46.7 |
| 35 | 96,642 | 481,553 | 663 | 0.99314 | 0.00686 | 0.00138 | 0.99100 | 42.1 |
| 40 | 95,979 | 477,220 | 1,071 | 0.98885 | 0.01115 | 0.00224 | 0.98779 | 37.3 |
| 45 | 94,909 | 471,393 | 1,260 | 0.98672 | 0.01328 | 0.00267 | 0.97968 | 32.7 |
| 50 | 93,648 | 461,813 | 2,572 | 0.97254 | 0.02746 | 0.00557 | 0.96472 | 28.1 |
| 55 | 91,077 | 445,521 | 3,945 | 0.95668 | 0.04332 | 0.00886 | 0.94449 | 23.9 |
| 60 | 87,132 | 420,789 | 5,948 | 0.93174 | 0.06826 | 0.01413 | 0.91148 | 19.8 |
| 65 | 81,184 | 383,541 | 8,952 | 0.88973 | 0.11027 | 0.02334 | 0.86059 | 16.1 |
| 70 | 72,232 | 330,071 | 12,436 | 0.82784 | 0.17216 | 0.03768 | 0.79084 | 12.8 |
| 75 | 59,796 | 261,033 | 15,180 | 0.74615 | 0.25385 | 0.05815 | 0.68926 | 9.9 |
| 80 | 44,617 | 179,920 | 17,265 | 0.61303 | 0.38697 | 0.09596 | 0.45876 | 7.5 |
| 85 | 27,351 | 152,501 | 27,351 | 0.00000 | 1.00000 | 0.17935 | . | 5.6 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,417 | 686 | 0.99314 | 0.00686 | 0.00690 | 0.99876 | 80.7 |
| 1 | 99,314 | 397,038 | 110 | 0.99890 | 0.00110 | 0.00028 | . | 80.2 |
| 5 | 99,205 | 495,840 | 73 | 0.99926 | 0.00074 | 0.00015 | 0.99921 | 76.3 |
| 10 | 99,131 | 495,448 | 84 | 0.99916 | 0.00084 | 0.00017 | 0.99858 | 71.4 |
| 15 | 99,048 | 494,746 | 197 | 0.99801 | 0.00199 | 0.00040 | 0.99808 | 66.4 |
| 20 | 98,851 | 493,797 | 183 | 0.99815 | 0.00185 | 0.00037 | 0.99759 | 61.6 |
| 25 | 98,668 | 492,605 | 294 | 0.99702 | 0.00298 | 0.00060 | 0.99637 | 56.7 |
| 30 | 98,374 | 490,816 | 422 | 0.99571 | 0.00429 | 0.00086 | 0.99544 | 51.8 |
| 35 | 97,952 | 488,576 | 474 | 0.99516 | 0.00484 | 0.00097 | 0.99444 | 47.1 |
| 40 | 97,478 | 485,860 | 612 | 0.99372 | 0.00628 | 0.00126 | 0.99163 | 42.3 |
| 45 | 96,866 | 481,794 | 1,014 | 0.98953 | 0.01047 | 0.00211 | 0.98726 | 37.5 |
| 50 | 95,852 | 475,654 | 1,441 | 0.98496 | 0.01504 | 0.00303 | 0.97924 | 32.9 |
| 55 | 94,410 | 465,782 | 2,508 | 0.97344 | 0.02656 | 0.00538 | 0.96392 | 28.4 |
| 60 | 91,903 | 448,974 | 4,215 | 0.95413 | 0.04587 | 0.00939 | 0.94233 | 24.1 |
| 65 | 87,687 | 423,084 | 6,141 | 0.92997 | 0.07003 | 0.01452 | 0.91790 | 20.1 |
| 70 | 81,546 | 388,350 | 7,752 | 0.90493 | 0.09507 | 0.01996 | 0.87623 | 16.4 |
| 75 | 73,794 | 340,282 | 11,475 | 0.84450 | 0.15550 | 0.03372 | 0.79968 | 12.9 |
| 80 | 62,319 | 272,118 | 15,791 | 0.74661 | 0.25339 | 0.05803 | 0.55449 | 9.8 |
| 85 | 46,528 | 338,677 | 46,528 | 0.00000 | 1.00000 | 0.13738 | . | 7.3 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A8: Total population – deprivation group 8

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,285 | 842 | 0.99158 | 0.00842 | 0.00848 | 0.99801 | 74.1 |
| 1 | 99,158 | 396,244 | 195 | 0.99803 | 0.00197 | 0.00049 | . | 73.8 |
| 5 | 98,964 | 494,541 | 111 | 0.99888 | 0.00112 | 0.00022 | 0.99844 | 69.9 |
| 10 | 98,853 | 493,768 | 199 | 0.99799 | 0.00201 | 0.00040 | 0.99618 | 65.0 |
| 15 | 98,654 | 491,882 | 556 | 0.99436 | 0.00564 | 0.00113 | 0.99379 | 60.1 |
| 20 | 98,098 | 488,826 | 666 | 0.99321 | 0.00679 | 0.00136 | 0.99332 | 55.4 |
| 25 | 97,432 | 485,562 | 639 | 0.99344 | 0.00656 | 0.00132 | 0.99328 | 50.8 |
| 30 | 96,793 | 482,298 | 666 | 0.99312 | 0.00688 | 0.00138 | 0.99263 | 46.1 |
| 35 | 96,126 | 478,742 | 756 | 0.99214 | 0.00786 | 0.00158 | 0.98956 | 41.4 |
| 40 | 95,370 | 473,742 | 1,244 | 0.98696 | 0.01304 | 0.00263 | 0.98495 | 36.7 |
| 45 | 94,126 | 466,614 | 1,607 | 0.98293 | 0.01707 | 0.00344 | 0.97715 | 32.2 |
| 50 | 92,519 | 455,955 | 2,657 | 0.97128 | 0.02872 | 0.00583 | 0.96041 | 27.7 |
| 55 | 89,862 | 437,903 | 4,564 | 0.94922 | 0.05078 | 0.01042 | 0.93735 | 23.4 |
| 60 | 85,299 | 410,467 | 6,411 | 0.92484 | 0.07516 | 0.01562 | 0.90584 | 19.6 |
| 65 | 78,888 | 371,818 | 9,049 | 0.88530 | 0.11470 | 0.02434 | 0.85730 | 16.0 |
| 70 | 69,839 | 318,759 | 12,175 | 0.82567 | 0.17433 | 0.03819 | 0.78322 | 12.7 |
| 75 | 57,664 | 249,660 | 15,465 | 0.73181 | 0.26819 | 0.06194 | 0.66911 | 9.9 |
| 80 | 42,200 | 167,049 | 17,579 | 0.58342 | 0.41658 | 0.10523 | 0.47570 | 7.6 |
| 85 | 24,620 | 151,566 | 24,620 | 0.00000 | 1.00000 | 0.16244 | . | 6.2 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,625 | 441 | 0.99559 | 0.00441 | 0.00443 | 0.99868 | 80.2 |
| 1 | 99,559 | 397,981 | 127 | 0.99872 | 0.00128 | 0.00032 | . | 79.5 |
| 5 | 99,432 | 496,951 | 83 | 0.99917 | 0.00083 | 0.00017 | 0.99900 | 75.6 |
| 10 | 99,349 | 496,455 | 116 | 0.99883 | 0.00117 | 0.00023 | 0.99841 | 70.7 |
| 15 | 99,233 | 495,666 | 200 | 0.99799 | 0.00201 | 0.00040 | 0.99807 | 65.8 |
| 20 | 99,034 | 494,708 | 184 | 0.99814 | 0.00186 | 0.00037 | 0.99832 | 60.9 |
| 25 | 98,850 | 493,875 | 149 | 0.99849 | 0.00151 | 0.00030 | 0.99745 | 56.0 |
| 30 | 98,700 | 492,616 | 354 | 0.99641 | 0.00359 | 0.00072 | 0.99599 | 51.1 |
| 35 | 98,346 | 490,643 | 435 | 0.99558 | 0.00442 | 0.00089 | 0.99289 | 46.3 |
| 40 | 97,911 | 487,155 | 960 | 0.99020 | 0.00980 | 0.00197 | 0.98879 | 41.5 |
| 45 | 96,951 | 481,697 | 1,224 | 0.98738 | 0.01262 | 0.00254 | 0.98222 | 36.8 |
| 50 | 95,728 | 473,130 | 2,203 | 0.97698 | 0.02302 | 0.00466 | 0.97220 | 32.3 |
| 55 | 93,524 | 459,974 | 3,059 | 0.96729 | 0.03271 | 0.00665 | 0.95724 | 28.0 |
| 60 | 90,465 | 440,308 | 4,808 | 0.94686 | 0.05314 | 0.01092 | 0.94035 | 23.8 |
| 65 | 85,658 | 414,042 | 5,699 | 0.93347 | 0.06653 | 0.01376 | 0.91368 | 20.0 |
| 70 | 79,959 | 378,302 | 8,597 | 0.89248 | 0.10752 | 0.02273 | 0.86627 | 16.3 |
| 75 | 71,362 | 327,711 | 11,639 | 0.83690 | 0.16310 | 0.03552 | 0.78959 | 12.9 |
| 80 | 59,723 | 258,757 | 15,943 | 0.73305 | 0.26695 | 0.06161 | 0.56604 | 10.0 |
| 85 | 43,780 | 337,517 | 43,780 | 0.00000 | 1.00000 | 0.12971 | . | 7.7 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A9: Total population – deprivation group 9

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,238 | 896 | 0.99104 | 0.00896 | 0.00903 | 0.99828 | 72.7 |
| 1 | 99,104 | 396,117 | 149 | 0.99850 | 0.00150 | 0.00038 | . | 72.3 |
| 5 | 98,955 | 494,503 | 108 | 0.99891 | 0.00109 | 0.00022 | 0.99837 | 68.4 |
| 10 | 98,847 | 493,699 | 213 | 0.99784 | 0.00216 | 0.00043 | 0.99672 | 63.5 |
| 15 | 98,633 | 492,081 | 434 | 0.99560 | 0.00440 | 0.00088 | 0.99447 | 58.6 |
| 20 | 98,199 | 489,362 | 654 | 0.99334 | 0.00666 | 0.00134 | 0.99221 | 53.9 |
| 25 | 97,545 | 485,552 | 870 | 0.99108 | 0.00892 | 0.00179 | 0.99185 | 49.2 |
| 30 | 96,675 | 481,596 | 713 | 0.99263 | 0.00737 | 0.00148 | 0.99148 | 44.7 |
| 35 | 95,963 | 477,493 | 929 | 0.99032 | 0.00968 | 0.00194 | 0.98757 | 40.0 |
| 40 | 95,034 | 471,560 | 1,445 | 0.98480 | 0.01520 | 0.00306 | 0.97958 | 35.3 |
| 45 | 93,590 | 461,931 | 2,407 | 0.97428 | 0.02572 | 0.00521 | 0.97168 | 30.8 |
| 50 | 91,183 | 448,851 | 2,825 | 0.96901 | 0.03099 | 0.00629 | 0.95555 | 26.6 |
| 55 | 88,357 | 428,900 | 5,155 | 0.94166 | 0.05834 | 0.01202 | 0.92665 | 22.4 |
| 60 | 83,202 | 397,439 | 7,430 | 0.91071 | 0.08929 | 0.01869 | 0.88945 | 18.6 |
| 65 | 75,773 | 353,502 | 10,145 | 0.86611 | 0.13389 | 0.02870 | 0.84098 | 15.2 |
| 70 | 65,628 | 297,287 | 12,341 | 0.81195 | 0.18805 | 0.04151 | 0.76124 | 12.1 |
| 75 | 53,287 | 226,307 | 16,051 | 0.69878 | 0.30122 | 0.07093 | 0.65250 | 9.4 |
| 80 | 37,236 | 147,666 | 15,405 | 0.58628 | 0.41372 | 0.10433 | 0.45814 | 7.3 |
| 85 | 21,831 | 124,850 | 21,831 | 0.00000 | 1.00000 | 0.17485 | . | 5.7 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,516 | 569 | 0.99431 | 0.00569 | 0.00572 | 0.99868 | 78.8 |
| 1 | 99,431 | 397,479 | 122 | 0.99877 | 0.00123 | 0.00031 | . | 78.3 |
| 5 | 99,309 | 496,338 | 82 | 0.99917 | 0.00083 | 0.00017 | 0.99914 | 74.4 |
| 10 | 99,226 | 495,909 | 89 | 0.99910 | 0.00090 | 0.00018 | 0.99761 | 69.4 |
| 15 | 99,137 | 494,723 | 385 | 0.99611 | 0.00389 | 0.00078 | 0.99695 | 64.5 |
| 20 | 98,752 | 493,214 | 218 | 0.99779 | 0.00221 | 0.00044 | 0.99747 | 59.7 |
| 25 | 98,534 | 491,966 | 281 | 0.99715 | 0.00285 | 0.00057 | 0.99675 | 54.8 |
| 30 | 98,253 | 490,365 | 359 | 0.99634 | 0.00366 | 0.00073 | 0.99609 | 50.0 |
| 35 | 97,893 | 488,448 | 408 | 0.99583 | 0.00417 | 0.00083 | 0.99238 | 45.2 |
| 40 | 97,486 | 484,724 | 1,082 | 0.98891 | 0.01109 | 0.00223 | 0.98690 | 40.3 |
| 45 | 96,404 | 478,372 | 1,459 | 0.98486 | 0.01514 | 0.00305 | 0.98046 | 35.8 |
| 50 | 94,945 | 469,024 | 2,280 | 0.97599 | 0.02401 | 0.00486 | 0.96971 | 31.3 |
| 55 | 92,665 | 454,819 | 3,402 | 0.96329 | 0.03671 | 0.00748 | 0.95303 | 27.0 |
| 60 | 89,263 | 433,458 | 5,143 | 0.94239 | 0.05761 | 0.01186 | 0.92955 | 22.9 |
| 65 | 84,120 | 402,922 | 7,072 | 0.91593 | 0.08407 | 0.01755 | 0.89618 | 19.2 |
| 70 | 77,049 | 361,092 | 9,660 | 0.87462 | 0.12538 | 0.02675 | 0.85162 | 15.7 |
| 75 | 67,388 | 307,512 | 11,772 | 0.82532 | 0.17468 | 0.03828 | 0.78223 | 12.6 |
| 80 | 55,617 | 240,547 | 15,015 | 0.73003 | 0.26997 | 0.06242 | 0.55566 | 9.7 |
| 85 | 40,602 | 300,810 | 40,602 | 0.00000 | 1.00000 | 0.13498 | . | 7.4 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

Table A10: Total population – deprivation group 10

| Exact age (years) | Out of 100,000 people born: | | | Probability that a person who reaches this age: | | Central annual death rate for the age interval | Proportion of age group x to x+5 surviving another 5 years | Expected number of years of life remaining at age x |
|-------------------|-----------------------------|--|----------------------------------|---|--------------------------|--|--|---|
| | Number alive at exact age | Average number alive in the age interval | Number dying in the age interval | Is alive at end of the age interval | Dies in the age interval | | | |
| x | l_x | L_x | d_x | p_x | q_x | m_x | s_x | e_x |
| Males | | | | | | | | |
| 0 | 100,000 | 99,150 | 1,000 | 0.99000 | 0.01000 | 0.01008 | 0.99769 | 69.8 |
| 1 | 99,000 | 395,523 | 239 | 0.99758 | 0.00242 | 0.00060 | . | 69.5 |
| 5 | 98,761 | 493,531 | 110 | 0.99889 | 0.00111 | 0.00022 | 0.99845 | 65.6 |
| 10 | 98,651 | 492,765 | 196 | 0.99801 | 0.00199 | 0.00040 | 0.99570 | 60.7 |
| 15 | 98,455 | 490,645 | 652 | 0.99338 | 0.00662 | 0.00133 | 0.99206 | 55.8 |
| 20 | 97,803 | 486,751 | 906 | 0.99074 | 0.00926 | 0.00186 | 0.98972 | 51.2 |
| 25 | 96,897 | 481,748 | 1,095 | 0.98870 | 0.01130 | 0.00227 | 0.98862 | 46.6 |
| 30 | 95,802 | 476,266 | 1,098 | 0.98854 | 0.01146 | 0.00231 | 0.98756 | 42.1 |
| 35 | 94,704 | 470,340 | 1,272 | 0.98656 | 0.01344 | 0.00271 | 0.98354 | 37.6 |
| 40 | 93,432 | 462,597 | 1,825 | 0.98047 | 0.01953 | 0.00395 | 0.97201 | 33.1 |
| 45 | 91,607 | 449,651 | 3,353 | 0.96339 | 0.03661 | 0.00746 | 0.95699 | 28.7 |
| 50 | 88,253 | 430,313 | 4,382 | 0.95035 | 0.04965 | 0.01018 | 0.93606 | 24.7 |
| 55 | 83,872 | 402,798 | 6,624 | 0.92102 | 0.07898 | 0.01645 | 0.90273 | 20.8 |
| 60 | 77,248 | 363,618 | 9,048 | 0.88287 | 0.11713 | 0.02488 | 0.86058 | 17.4 |
| 65 | 68,200 | 312,923 | 11,230 | 0.83533 | 0.16467 | 0.03589 | 0.81477 | 14.4 |
| 70 | 56,969 | 254,960 | 11,955 | 0.79016 | 0.20984 | 0.04689 | 0.74205 | 11.7 |
| 75 | 45,015 | 189,192 | 14,353 | 0.68116 | 0.31884 | 0.07586 | 0.63485 | 9.2 |
| 80 | 30,662 | 120,109 | 13,281 | 0.56687 | 0.43313 | 0.11057 | 0.46103 | 7.3 |
| 85 | 17,381 | 102,742 | 17,381 | 0.00000 | 1.00000 | 0.16918 | . | 5.9 |
| Females | | | | | | | | |
| 0 | 100,000 | 99,289 | 837 | 0.99163 | 0.00837 | 0.00843 | 0.99832 | 77.2 |
| 1 | 99,163 | 396,295 | 178 | 0.99820 | 0.00180 | 0.00045 | . | 76.8 |
| 5 | 98,985 | 494,752 | 68 | 0.99931 | 0.00069 | 0.00014 | 0.99870 | 73.0 |
| 10 | 98,916 | 494,107 | 190 | 0.99808 | 0.00192 | 0.00038 | 0.99744 | 68.0 |
| 15 | 98,727 | 492,844 | 316 | 0.99680 | 0.00320 | 0.00064 | 0.99666 | 63.1 |
| 20 | 98,411 | 491,196 | 344 | 0.99651 | 0.00349 | 0.00070 | 0.99650 | 58.3 |
| 25 | 98,067 | 489,479 | 343 | 0.99650 | 0.00350 | 0.00070 | 0.99632 | 53.5 |
| 30 | 97,724 | 487,679 | 377 | 0.99615 | 0.00385 | 0.00077 | 0.99463 | 48.7 |
| 35 | 97,347 | 485,058 | 672 | 0.99310 | 0.00690 | 0.00138 | 0.99010 | 43.9 |
| 40 | 96,676 | 480,254 | 1,250 | 0.98707 | 0.01293 | 0.00260 | 0.98441 | 39.2 |
| 45 | 95,426 | 472,766 | 1,745 | 0.98171 | 0.01829 | 0.00369 | 0.97472 | 34.7 |
| 50 | 93,680 | 460,814 | 3,035 | 0.96760 | 0.03240 | 0.00659 | 0.95741 | 30.3 |
| 55 | 90,645 | 441,187 | 4,816 | 0.94687 | 0.05313 | 0.01092 | 0.93753 | 26.2 |
| 60 | 85,829 | 413,626 | 6,209 | 0.92766 | 0.07234 | 0.01501 | 0.91396 | 22.5 |
| 65 | 79,621 | 378,038 | 8,027 | 0.89919 | 0.10081 | 0.02123 | 0.88262 | 19.1 |
| 70 | 71,594 | 333,666 | 9,722 | 0.86420 | 0.13580 | 0.02914 | 0.84186 | 15.9 |
| 75 | 61,872 | 280,899 | 11,384 | 0.81600 | 0.18400 | 0.04053 | 0.77836 | 13.0 |
| 80 | 50,488 | 218,641 | 13,519 | 0.73223 | 0.26777 | 0.06183 | 0.58427 | 10.4 |
| 85 | 36,969 | 307,283 | 36,969 | 0.00000 | 1.00000 | 0.12031 | . | 8.3 |

Note: deprivation group = NZDep96 decile; for figures in columns L_x , d_x , p_x , q_x and m_x the age interval relates to a five-year period except for: age 0 which relates to a one-year period, age 1 which relates to a four-year period, and age 85 which relates to remaining life span.

Source: Statistics New Zealand

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